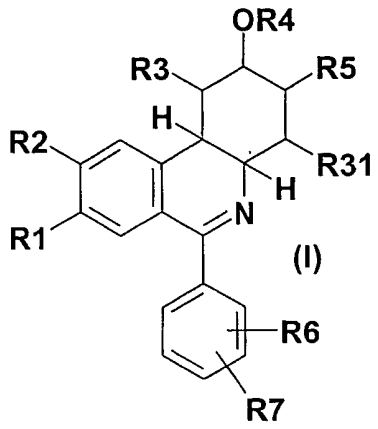
Patent Claims

1. Compounds of the formula I,



in which

R1 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, or completely or predominantly fluorine-substituted 1-4C-alkoxy,

R2 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, or completely or predominantly fluorine-substituted 1-4C-alkoxy,

or in which

R1 and R2 together are a 1-2C-alkylenedioxy group,

R3 is hydrogen or 1-4C-alkyl,

R31 is hydrogen or 1-4C-alkyl,

R4 is hydrogen, 1-4C-alkyl, completely or predominantly fluorine-substituted 1-4C-alkyl, 1-4C-alkoxy-1-4C-alkyl, hydroxy-2-4C-alkyl or 1-7C-alkylcarbonyl,

R5 is hydrogen or 1-4C-alkyl,

R6 is hydrogen, 1-4C-alkyl, trifluoromethyl, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, halogen, nitro, cyano, hydroxyl, 1-4C-alkylcarbonyloxy, amino, mono- or di-1-4C-alkylamino, phenyl, phenyl-1-4C-alkyl, 1-4C-alkylcarbonylamino, phenoxy or C(O)OR61, wherein

R61 is hydrogen, 1-7C-alkyl, 3-7C-cycloalkyl or 3-7C-cycloalkylmethyl,

R7 is hydrogen, 1-4C-alkyl, hydroxyl, halogen, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy or C(O)OR61,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

2. Compounds of the formula I according to claim 1, in which

R1 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy or completely or predominantly fluorine-substituted 1-4C-alkoxy,

R2 is hydroxyl, 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy or completely or predominantly fluorine-substituted 1-4C-alkoxy,

or in which

R1 and R2 together are a 1-2C-alkylenedioxy group,

R3 is hydrogen or 1-4C-alkyl,

R31 is hydrogen or 1-4C-alkyl,

R4 is hydrogen, 1-4C-alkyl, completely or predominantly fluorine-substituted 1-4C-alkyl, 1-4C-alkoxy-1-4C-alkyl, hydroxy-2-4-alkyl or 1-7C-alkylcarbonyl,

R5 is hydrogen or 1-4C-alkyl,

R6 is hydrogen, 1-4C-alkyl, trifluoromethyl, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy, halogen, nitro, cyano, hydroxyl, 1-4C-alkylcarbonyloxy, amino, mono- or di-1-4C-alkylamino, phenyl, phenyl-1-4C-alkyl, 1-4C-alkylcarbonylamino or C(O)OR61, wherein

R61 is hydrogen, 1-7C-alkyl, 3-7C-cycloalkyl or 3-7C-cycloalkylmethyl,

R7 is hydrogen, 1-4C-alkyl, hydroxyl, halogen, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 3-7C-cycloalkoxy, 3-7C-cycloalkylmethoxy or C(O)OR61,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

3. Compounds of the formula I according to claim 1, in which

R1 is 1-2C-alkoxy, 3-5C-cycloalkoxy, 3-5C-cycloalkylmethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,

R2 is 1-2C-alkoxy, 3-5C-cycloalkoxy, 3-5C-cycloalkylmethoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,

R3 is hydrogen,

R31 is hydrogen,

R4 is hydrogen, 1-4C-alkyl, 1-2C-alkoxy-2-4C-alkyl or 1-7C-alkylcarbonyl,

R5 is hydrogen,

R6 is 1-4C-alkyl, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 3-7C-cycloalkylmethoxy, halogen, nitro, cyano, hydroxyl, 1-4C-alkylcarbonyloxy, mono- or di-1-4C-alkylamino, 1-4C-alkylcarbonylamino, phenoxy or C(O)OR61, wherein

R61 is hydrogen or 1-7C-alkyl,

R7 is hydrogen, halogen, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, or 3-7C-cycloalkylmethoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

4. Compounds of the formula I according to claim 1 or 3, in which

R1 is 1-2C-alkoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,

R2 is 1-2C-alkoxy, or completely or predominantly fluorine-substituted 1-2C-alkoxy,

R3 is hydrogen,

R31 is hydrogen,

R4 is hydrogen, 1-4C-alkyl, 1-2C-alkoxyethyl or 1-7C-alkylcarbonyl,

R5 is hydrogen,

R6 is 1-4C-alkyl, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 3-7C-cycloalkylmethoxy, halogen, nitro, cyano, hydroxyl, 1-4C-alkylcarbonyloxy, mono- or di-1-4C-alkylamino, 1-4C-alkylcarbonylamino, phenoxy or C(O)OR61, wherein

R61 is hydrogen or 1-7C-alkyl,

R7 is hydrogen, halogen, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, or 3-7C-cycloalkylmethoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

5. Compounds of the formula I according to any of the claims 1, 3 or 4, in which

R1 is ethoxy, and

R2 is methoxy or difluoromethoxy,

or

R1 is methoxy or difluoromethoxy, and

R2 is methoxy, difluoromethoxy or ethoxy,

or

R1 is difluoromethoxy, and

R2 is methoxy or ethoxy,

or

R1 is methoxy, and

R2 is ethoxy or difluoromethoxy,

R3 is hydrogen,

R31 is hydrogen,

R4 is hydrogen, 1-4C-alkyl, 1-2C-alkoxyethyl or 1-7C-alkylcarbonyl,

R5 is hydrogen,

R6 is 1-4C-alkyl, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, 3-7C-cycloalkylmethoxy, halogen, nitro, cyano, hydroxyl, 1-4C-alkylcarbonyloxy, mono- or di-1-4C-alkylamino, 1-4C-alkylcarbonylamino, phenoxy or C(O)OR61, wherein

R61 is hydrogen or 1-7C-alkyl,

R7 is hydrogen, halogen, 1-4C-alkoxy, completely or predominantly fluorine-substituted 1-4C-alkoxy, or 3-7C-cycloalkylmethoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

6. Compounds of the formula I according to any of the claims 1, 3, 4 or 5, in which

R1 is methoxy or difluoromethoxy,

R2 is methoxy, difluoromethoxy or ethoxy,

R3 is hydrogen,

R31 is hydrogen,

R4 is hydrogen, methyl, ethyl, methoxyethyl or acetyl,

R5 is hydrogen,

R6 is methyl, methoxy, ethoxy, propoxy, butoxy, difluoromethoxy, trifluoromethoxy, 1,1,2,2-tetrafluoroethoxy, cyclopropylmethoxy, fluorine, chlorine, bromine, nitro, cyano, hydroxyl, acetoxy, dimethylamino, acetamido, phenoxy or C(O)OR61, wherein

R61 is hydrogen or methyl,

R7 is hydrogen, fluorine, methoxy, ethoxy, propoxy, butoxy, difluoromethoxy or cyclopropylmethoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

7. Compounds of the formula I according to any of the claims 1, 3, 4, 5 or 6, in which

R1 is methoxy, and

R2 is methoxy,

or

R1 is difluoromethoxy, and

R2 is methoxy,

or

R1 is methoxy, and

R2 is ethoxy or difluoromethoxy,

R3 is hydrogen,

R31 is hydrogen,

R4 is hydrogen, methyl, ethyl, methoxyethyl or acetyl,

R5 is hydrogen,

R6 is methyl, methoxy, ethoxy, propoxy, butoxy, difluoromethoxy, trifluoromethoxy, 1,1,2,2-tetrafluoroethoxy, cyclopropylmethoxy, fluorine, chlorine, bromine, nitro, cyano, hydroxyl, acetoxy, dimethylamino, acetamido, phenoxy or C(O)OR61, wherein

R61 is hydrogen or methyl,

R7 is hydrogen, fluorine, methoxy, difluoromethoxy or cyclopropylmethoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

8. Compounds of the formula I according to any of the proceding claims, in which

R1 is methoxy,

R2 is methoxy,

R3 is hydrogen,

R31 is hydrogen,

R4 is hydrogen or acetyl,

R5 is hydrogen,

R6 is methoxy, cyclopropylmethoxy, nitro, dimethylamino or C(O)OR61, wherein

R61 is hydrogen or methyl,

R7 is hydrogen, methoxy or cyclopropylmethoxy,

and the salts, the N-oxides and the salts of the N-oxides of these compounds.

9. Compounds according to claim 1 selected from the group consisting of

(±)-acetic acid (2RS,4aRS,10bRS)-6-(3,4-bis-cyclopropylmethoxyphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-yl ester,

(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-methoxycarbonylphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-yl ester,

(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-dimethylaminophenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-yl ester,

(±)-acetic acid (2RS,4aRS,10bRS)-6-(3,4-dimethoxyphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-yl ester,

(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-nitrophenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-yl ester,

(±)-acetic acid (2SR,4aRS,10bRS)-6-(3,4-bis-cyclopropylmethoxyphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-yl ester,

(±)-(2RS,4aRS,10bRS)-6-(3,4-bis-cyclopropylmethoxyphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-ol,

(±)-(2RS,4aRS,10bRS)-6-(4-methoxycarbonylphenyl)-8,9-dimethoxy- (1,2,3,4,4a,10b)-hexahydrophenanthridin-2-ol,

(±)-(2RS,4aRS,10bRS)-6-(4-dimethylaminophenyl)-8,9-dimethoxy- (1,2,3,4,4a,10b)-hexahydrophenanthridin-2-ol,

(±)-(2RS,4aRS,10bRS)-6-(3,4-dimethoxyphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-ol,

(±)-(2RS,4aRS,10bRS)-6-(4-nitrophenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-ol,

(±)-(2RS,4aRS,10bRS)-6-(4-carboxyphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-ol,

(±)-(2SR,4aRS,10bRS)-6-(3,4-bis-cyclopropylmethoxyphenyl)-8,9-dimethoxy-(1,2,3,4,4a,10b)-hexahydrophenanthridin-2-ol,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-butoxy-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydrophenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-8,9-dimethoxy-6-(4-methoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-cyano-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid 4-((2RS,4aRS,10bRS)-2-acetoxy-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-acetylamino-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-chloro-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(2-chloro-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-8,9-dimethoxy-6-(4-methoxy-3-propoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-8,9-dimethoxy-6-p-tolyl-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-4-((2RS,4aRS,10bRS)-2-acetoxy-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-benzoic acid methyl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-9-ethoxy-6-(4-fluoro-phenyl)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-cyano-phenyl)-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(3-cyclopropylmethoxy-4-ethoxy-phenyl)-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-[3-cyclopropylmethoxy-4-(1,1-difluoro-methoxy)-phenyl]-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-[3,4-bis-(1,1-difluoro-methoxy)-phenyl]-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-[3-(1,1-difluoro-methoxy)-phenyl]-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-9-ethoxy-8-methoxy-6-[4-(1,1,2,2-tetrafluoro-ethoxy)-phenyl]-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,

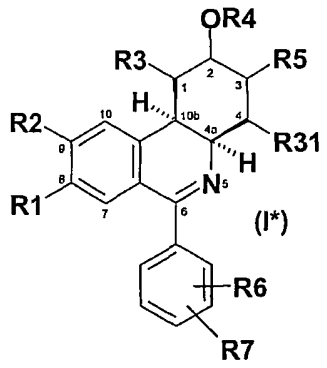
(±)-acetic acid (2RS,4aRS,10bRS)-9-ethoxy-8-methoxy-6-(4-trifluoromethoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-9-ethoxy-6-(3-fluoro-4-methoxy-phenyl)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(3,4-difluoro-phenyl)-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-9-ethoxy-6-(3-fluoro-phenyl)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-bromo-phenyl)-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-[4-(1,1-difluoro-methoxy)-phenyl]-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-8,9-dimethoxy-6-(4-phenoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-fluoro-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-[3,4-bis-(1,1-difluoro-methoxy)-phenyl]-8-(1,1-difluoro-methoxy)-9-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-cyano-phenyl)-8-(1,1-difluoro-methoxy)-9-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-4-[(2RS,4aRS,10bRS)-2-acetoxy-8-(1,1-difluoro-methoxy)-9-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl]-benzoic acid methyl ester,
(±)-4-[(2RS,4aRS,10bRS)-2-acetoxy-9-(1,1-difluoro-methoxy)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl]-benzoic acid methyl ester,
(±)-(2RS,4aRS,10bRS)-6-(4-butoxy-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-(4-fluoro-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-N-[4-((2RS,4aRS,10bRS)-2-hydroxy-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-phenyl]-acetamide,
(±)-(2RS,4aRS,10bRS)-6-(4-chloro-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-(2-chloro-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-8,9-dimethoxy-6-(4-methoxy-3-propoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-[4-(1,1-difluoro-methoxy)-phenyl]-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,

(±)-4-((2RS,4aRS,10bRS)-9-ethoxy-2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-benzoic acid methyl ester,
(±)-(2RS,4aRS,10bRS)-9-ethoxy-6-(4-fluoro-phenyl)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-4-((2RS,4aRS,10bRS)-9-ethoxy-2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-benzonitrile,
(±)-(2RS,4aRS,10bRS)-6-(3-cyclopropylmethoxy-4-ethoxy-phenyl)-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-[3-cyclopropylmethoxy-4-(1,1-difluoro-methoxy)-phenyl]-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-[3,4-bis-(1,1-difluoro-methoxy)-phenyl]-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-[3-(1,1-difluoro-methoxy)-phenyl]-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-9-ethoxy-8-methoxy-6-[4-(1,1,2,2-tetrafluoro-ethoxy)-phenyl]-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-9-ethoxy-8-methoxy-6-(4-trifluoromethoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-9-ethoxy-6-(3-fluoro-4-methoxy-phenyl)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-(3,4-difluoro-phenyl)-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-9-ethoxy-6-(3-fluoro-phenyl)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-6-(4-bromo-phenyl)-9-ethoxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-8,9-dimethoxy-6-p-tolyl-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-8,9-dimethoxy-6-(4-phenoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-(2RS,4aRS,10bRS)-8,9-dimethoxy-6-(4-methoxy-phenyl)-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-4-((2RS,4aRS,10bRS)-2-hydroxy-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-benzonitrile,
(±)-(2RS,4aRS,10bRS)-6-[3,4-bis-(1,1-difluoro-methoxy)-phenyl]-8-(1,1-difluoro-methoxy)-9-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-ol,
(±)-4-[(2RS,4aRS,10bRS)-8-(1,1-difluoro-methoxy)-2-hydroxy-9-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl]-benzonitrile,

(±)-4-[(2RS,4aRS,10bRS)-8-(1,1-difluoro-methoxy)-2-hydroxy-9-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl]-benzoic acid methyl ester,
(±)-4-[(2RS,4aRS,10bRS)-9-(1,1-difluoro-methoxy)-2-hydroxy-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl]-benzoic acid methyl ester,
(±)-acetic acid (2RS,4aRS,10bRS)-6-(4-hydroxy-phenyl)-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-2-yl ester,
(±)-4-((2RS,4aRS,10bRS)-2-acetoxy-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-benzoic acid hydrochloride,
(±)-4-((2RS,4aRS,10bRS)-2-acetoxy-9-(1,1-difluoro-methoxy)-8-methoxy-1,2,3,4,4a,10b-hexahydro-phenanthridin-6-yl)-benzoic acid,
(±)-(2RS,4aRS,10bRS)-6-(3,4-bis-cyclopropylmethoxy-phenyl)-2,8,9-trimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridine,
(±)-(2RS,4aRS,10bRS)-6-(3,4-bis-cyclopropylmethoxy-phenyl)-2-ethoxy-8,9-dimethoxy-1,2,3,4,4a,10b-hexahydro-phenanthridine, and
(±)-(2RS,4aRS,10bRS)-6-(3,4-bis-cyclopropylmethoxy-phenyl)-8,9-dimethoxy-2-(2-methoxy-ethoxy)-1,2,3,4,4a,10b-hexahydro-phenanthridine,
and the salts, the N-oxides and the salts of the N-oxides of these compounds.

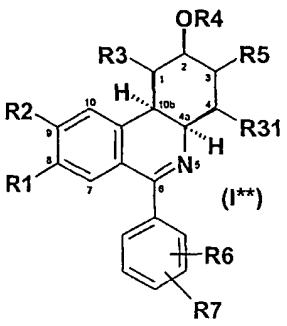
10. Compounds of the formula I according to any of the claims 1 to 8, in which the hydrogen atoms in positions 4a and 10b are in the cis position relative to one another, and the salts, the N-oxides and the salts of the N-oxides of these compounds.

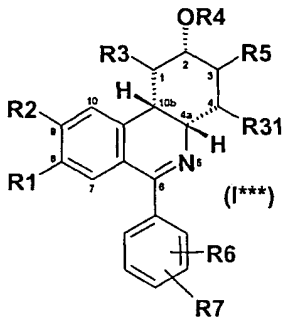
11. Compounds of the formula I according to any of the claims 1 to 8, which have with respect to the positions 4a and 10b the configuration shown in formula I*:

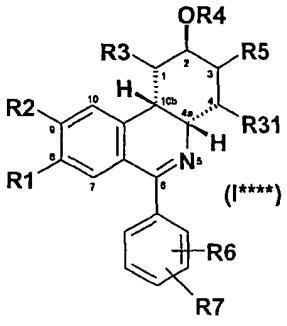


and the salts, the N-oxides and the salts of the N-oxides of these compounds.

12. Compounds of the formula I according to any of the claims 1 to 8, which have with respect to the positions 2, 4a and 10b the configuration shown either in formula I**, I*** or I****:

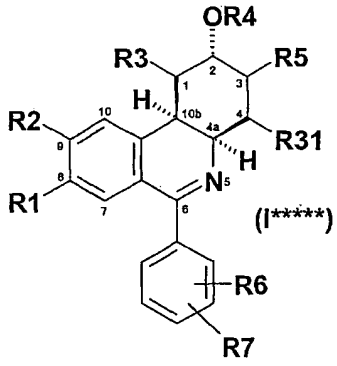






and the salts, the N-oxides and the salts of the N-oxides of these compounds.

13. Compounds of the formula I according to any of the claims 1 to 8, which have with respect to the positions 2, 4a and 10b the configuration shown in formula I*****:



and the salts, the N-oxides and the salts of the N-oxides of these compounds.

14. Compounds of the formula I as claimed in claim 1 for use in the treatment of diseases.

15. A pharmaceutical composition comprising one or more compounds of the formula I as claimed in claim 1 together with customary pharmaceutical excipients and/or vehicles.

16. The use of compounds of the formula I as claimed in claim 1 for the production of pharmaceutical compositions for treating respiratory disorders and/or dermatoses.

17. The use of compounds of the formula I as claimed in claim 1 for the production of pharmaceutical compositions for treating PDE-mediated disorders.

18. A method for treating illnesses in a patient comprising administering to said patient a therapeutically effective amount of a compound of the formula I as claimed in claim 1.

19. A method for treating airway disorders in a patient comprising administering to said patient a therapeutically effective amount of a compound of the formula I as claimed in claim 1.